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In re Application of:

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Morrell et al.

: Group Art Unit: 1623

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Serial No.

10/018,418

: Examiner: Not yet assigned

371 Filing date:

October 29, 2001

: Confirmation No.: 1169

International Filing Date:

April 28, 2000

For:

GENES ENCODING WHEAT STARCH SYNTHASES AND USES THEREFOR

(as amended)

#### INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents Washington, D.C. 20231

Sir:

The Examiner is respectfully requested to consider the references, copies enclosed, which may qualify as prior art. For the Examiner's convenience, the references are listed on the attached Patent and Trademark Office form PTO-1449.

It is believed that this submission does not require the payment of any fees. If this is incorrect, however, please charge any requisite fees to Deposit Account No. 07-1969.

Respectfully submitted,

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Attorney Docket No.: 127-01 bmk: September 12, 2002

## CERTIFICATE OF MAILING

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### **U.S. PATENT DOCUMENTS**

Exmr. Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate

### FOREIGN PATENT DOCUMENTS

Document Number	Date	Country	Class	Subclass	Translation Yes/No
WO 97/45545	04.12.97	PCT	C12N 15/54	15/82	

OTHER PRIOR ART (including Author, Title, Date, Pertinent Pages, etc.)

(morading framer, 1 me, Date, 1 ertifiem 1 ages, etc.)
Abel, G.J.W. et al., "Cloning and functional analysis of a cDNA encoding a novel 139 kDa starch synthase from potato (Solanum tuberosum L.), (1996) Plant J. 10(6):981-991
Ainsworth, C. et al., "Expression, organisation and structure of the genes encoding the waxy protein (granule-bound starch synthase) in wheat," (1993) Plant Mol. Biol. 22:67-82
Baba, T. et al., "Identification, cDNA cloning, and gene expression of soluble starch synthase in rice ( <i>Oryza sativa</i> L.) immature seeds," (1993) <i>Plant Physiol.</i> 103:565-573
Craig, J. et al., "Mutations in the gene encoding starch synthase II profoundly alter amylopectin structure in pea embryos," (March 1998) Plant Cell 10:413-426
Denyer, K. et al., "Identification of multiple isoforms of soluble and granule-bound starch synthase in developing wheat endosperm," (1995) <i>Planta</i> 196:256-265
Dry, I. et al., "Characterization of cDNAs encoding two isoforms of granule-bound starch synthase which show differential expression in developing storage organs of pea and potato," (1992) Plant J. 2(2):193-202
Edwards, A. et al., "Biochemical and molecular characterization of a novel starch synthase from potato tubers," (1995) <i>Plant J.</i> 8(2):283-294
Gao, M. et al., "Characterization of dull1, a maize gene coding for a novel starch synthase," (March 1998) Plant Cell 10:399-412

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ATTY DOCKET NO. 127-01	SERIAL NO. 10/018,418	FILING DATE 05/09/02	
APPLICANT Morrell et al.		GROUP 1623	

Harn, C. et al., "Isolation and characterization of the zSSIIa and zSSIIb starch synthase cDNA clones from maize endosperm," (July 1998) Plant Mol. Biol. 37:639-649
Klösgen, R.B. et al., "Molecular analysis of the waxy locus of Zea mays," (1986) Mol. Gen. Genet. 203:237-244
Knight, M.E. et al., "Molecular cloning of starch synthase I from maize (W64) endosperm and expression in <i>Escherichia coli</i> ," (June 1998) <i>Plant J.</i> <b>14(5)</b> :613-622
Li, Z. et al., "Cloning and characterization of a gene encoding wheat starch synthase I," (1999) Theor. Appl. Genet. 98:1208-1216
Li, Z. et al., "The localization and expression of the class II starch synthases of wheat," (August 1999) <i>Plant Physiology</i> <b>120</b> :1147-1155
Okagaki, R.J., "Nucleotide sequence of a long cDNA from the rice waxy gene," (1992) Plant Molecular Biology 19:513-516
Rahman, S. et al., "A complex arrangement of genes at a starch branching enzyme I locus in the D-genome donor of wheat," (1997) Genome 40:465-474
Rahman, S. et al., "The major proteins of wheat endosperm starch granules," (1995)  Aust. J. Plant Physiol. 22:793-803
Rahman, S. et al., "Characterisation of a gene encoding wheat endosperm starch branching enzyme-I," (1999) <i>Theor. Appl. Genet.</i> 98:156-163
Takaoka, M. et al., "Structural characterization of high molecular weight starch granule-bound proteins in wheat ( <i>Triticum aestivum</i> L.)," (1997) <i>J. Agric. Food Chem.</i> 45:2929-2934
van der Leij, F.R. et al., "Sequence of the structural gene for granule-bound starch synthase of potato ( <i>Solanum tuberosum</i> L.) and evidence for a single point deletion in the <i>amf</i> allele," (1991) <i>Mol. Gen. Genet.</i> 228:240-248
GenBank Accession #Y10416 (Jan. 1997) S. tuberosum mRNA for soluble starch synthase
GenBank Accession #U48227 (Jun. 1996) Triticum aestivum soluble starch synthase mRNA, partial cds
 GenBank Accession #AAB17085 (Oct. 1996) Starch synthase
GenBank Accession #U66377 (Oct. 1996) Triticum aestivum starch synthase mRNA, partial cds.
GenBank Accession #AAC14014 (Apr. 1998) Starch synthase DULL1 [Zea mays]
GenBank Accession #AAC14015 (Apr. 1998) Starch synthase DULL1 [Zea mays]



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ATTY DOCKET NO. 127-01	SERIAL NO. 10/018,418	FILING DATE 05/09/02
APPLICANT Morrell et al.		GROUP 1623

GenBank Accession #AAC17969 (Nov. 2001) Granule-bound starch synthase I precursor [Chlamydomonas reinhardtii].
GenBank Accession #CAB40374 (Apr. 1999) Starch synthase isoform SS III [Vigna unguiculata]
GenBank Accession #CAB86618 (Apr. 2002) Starch synthase IIa-1 [Triticum aestivum]
GenBank Accession #AJ269502 (Apr. 2002) Triticum aestivum mRNA for starch synthase IIa-1 (wSs2a-1 gene)
GenBank Accession #AF076680 (May 1999) Aegilops tauschii starch branching enzyme-I (SBE-I) gene, complete cds.

## **EXAMINER**

### **DATE CONSIDERED**

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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